



Reading Tea Leaves

The 2022 Rho Chi Lecture Award Address

Jean Nappi, Pharm D, FCCP
Professor Emeritus
Medical University of South Carolina

I'm thrilled and honored to be asked to give the Rho Chi lecture for 2022, the 100th anniversary for Rho Chi. It was nearly 50 years ago, in June of 1972, that I was inducted into Omega chapter of Rho Chi while I was a pharmacy student at the State University of New York at Buffalo. Rho Chi was the first professional pharmacy organization that I joined, soon to be followed by ASHP, AACP, ACCP and then a several other state pharmacy and medical associations. All the professional organizations I have been associated with have contributed to my growth as a healthcare professional and I encourage you to take advantage of whichever pharmacy organization calls to you. Rho chi recognizes and rewards outstanding scholarly attainment, through its College Chapters and thereby encourages and stimulates outstanding scholarship. I want to congratulate each of you for what you have achieved thus far, but I hope that you realize that this is only the beginning of what I hope to see you accomplish. There are a lot of professional organizations to choose from and your interests will likely change over the course of your career but please stay active. All professional organizations need active members and leaders.

As I looked at the list of the previous individuals presented with the Rho Chi lecture Award, I noted that several of them have had a direct impact on my own career. Drs Gerhard Levy and David Triggles were two of my professors at SUNY @Buffalo, where I received my BS in Pharmacy degree. James Dolusio was the Dean at the University of Texas where I was a Pharm. D. student. Then as a faculty member, I worked with and was influenced by Deans George Zografis at University of Wisconsin, Hal Wolf at the University of Utah and Joe DiPiro at the Medical University of South Carolina. I also had the opportunity to know and work with Dick Penna, Mary Ann Koda Kimble, Milap Nahata, Bill Evans, Jim Cloyd, Mary Ensom and Henry Mann through AACP and ACCP. I'm truly honored to be among the recipients of this very special recognition.

Generally, when asked to address a group like this, the speaker is expected to reflect on past and present-day scenarios and perhaps contemplate what the future might bring. So, I plan to do a little "looking back" and a little "looking forward" in these next few minutes. My mother was born in Scotland and immigrated to the United States shortly after the end of WWII. She told me that my grandmother used to tell fortunes by reading tea leaves. I don't read tea leaves. It's very hard to predict the future. I don't have a clear vision of how pharmacy or health care will transform over the next 50 years, but I'm certain it will change, and you will need to be prepared to change with it.

- This image of a pharmacy circa 1922 resembles the Pitt Street Pharmacy in Mount Pleasant SC that was established in 1937 and remains active to this day.

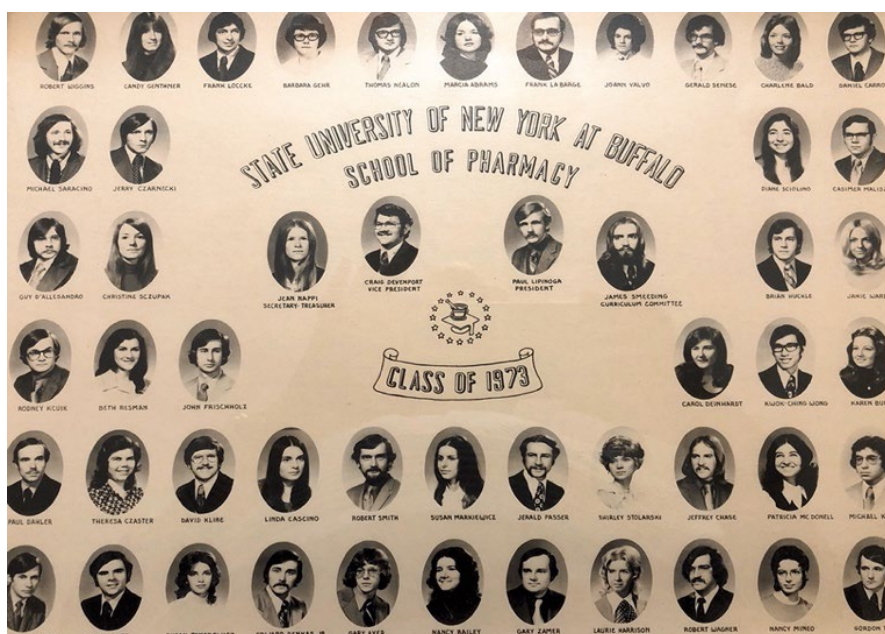


In addition to getting your prescriptions filled you can still get lunch or a delicious ice cream soda at the counter. In 2021, the Pitt Street Pharmacy and many other small independent pharmacies specialize in compounding medications. I used to get compounded prescriptions at the Pitt Street Pharmacy for my cat when I lived in Mount Pleasant, and I was very grateful for their expertise. When I was in pharmacy school at the University at Buffalo in 1972, a big part of our dispensing lab course was compounding. We made powder papers, suppositories, creams, solutions and capsules since New York State had a wet lab as part of the licensure process. That compounding course came in handy when I was a Pharm D student in San Antonio. I made gallons and gallons of Shohl's solution for dialysis patients on Saturday mornings in a pharmacy where I worked part-time.

One thing you might have noticed is that there aren't any women in the photograph from 1922. For many years pharmacy, much like medicine, was a male dominated profession. However, women have played important roles in the profession for hundreds of years. Elizabeth Greenleaf is thought to have been the first female apothecary in the colonial America¹ and opened her own apothecary shop in Boston in 1727. Some consider her to be the mother of pharmacy in addition to being a mother of twelve children.^{1,2}

The first woman to graduate from the New York College of Pharmacy was in 1863.² I would certainly be remiss if I didn't mention Zada Mary Cooper who served as secretary of the American Association of Colleges of Pharmacy from 1922 to 1942. She was a major force in the establishment of the Rho Chi Society in Michigan on May 19, 1922.^{2,3}

- Looking at my own class photographs, 21 of the 51 students in my BS in Pharmacy class were women which was 41%. I think a very good representation in 1973. If you look closely, you might recognize Dr. Chris Sorkness (nee Sczupak) from the University of Wisconsin or Dr. Beth Resman from the University of Oklahoma.



- Here we have a picture from 1974 of the first Post Baccalaureate Doctor of Pharmacy class from the University of Texas. In my Pharm D program, there were 2 women in a class of 12.

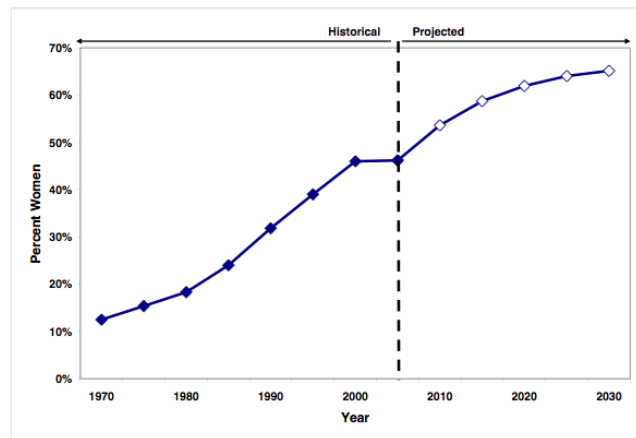


Can you imagine what life was like with no internet, and no cell phones? There were no personal computers, no electronic medical records. We all fought to read the same paper chart before rounds in the mornings. You were lucky if you could read half the words in a progress note. Pharmacists also had to read incredibly bad handwriting in order to process prescription orders. You either went to the library or subscribed to a print journal in order to read about new diseases or drugs. On the positive side, there were a lot fewer medical journals and a lot fewer drugs, so in some ways it was easier to keep up.

Clinical pharmacy or patient-centered care was in its infancy. I wish I had a dollar for every time somebody asked me what a clinical pharmacist was. I remember Dr. Charlie Walton, who was the director of the program in San Antonio, telling us that we were going to be the “change agents” for the profession and we needed to go out and change the way pharmacy would be practiced. After I graduated in 1977, the majority of “clinical pharmacy” positions were faculty positions. I remember going to annual meetings of the American Association of Colleges of Pharmacy where there would be discussions and debates as to whether clinical pharmacy courses and patient care clerkships should be a required part of the curriculum. Now these courses and experiences comprise most of the curriculum. I’d like to think that my colleagues and I were successful in being change agents. I expect each of you to contribute and continue to move our profession forward.

- Twenty years ago, the Health Resources and Services Administration projected by 2020 approximately 62% of active pharmacists would be women and in 2019, 65.1% of active pharmacy practitioners were women.⁴ Somebody read those tea leaves pretty well, since those percentages are spot on.

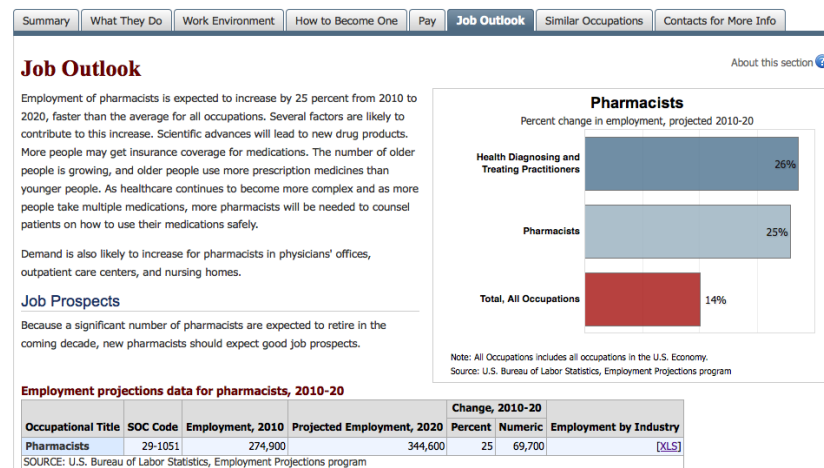
Exhibit 9. Percent of Pharmacists who are Women



Sources: HRSA (2000) and projections from the PhSRM.

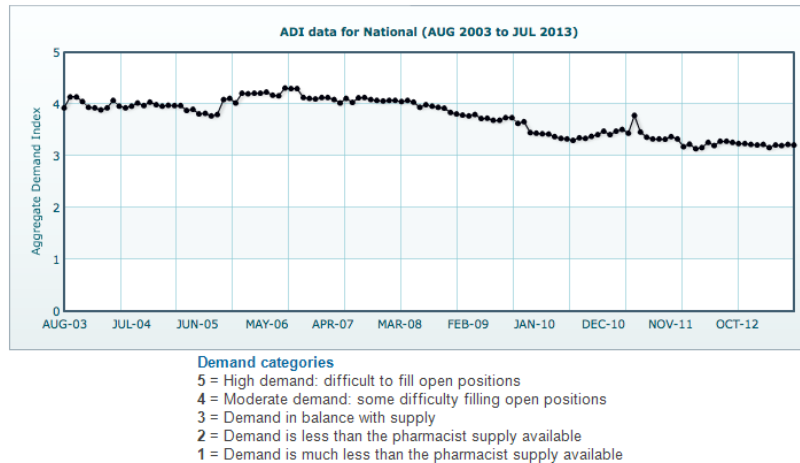
There have been some interesting and notable trends in the last 10 to 15 years. Some of these trends are good and some are not so good.

- In 2010 the Bureau of Labor Statistics projected a 25% increase in employment of pharmacists.⁵



That demand was easily met with a number of new Colleges of Pharmacy opening as well as established Colleges of Pharmacy increasing class size.

- From 2003 to 2008 the demand for pharmacists was considered moderate, meaning employers had some difficulty filling open positions. By 2013 the increase in the number of pharmacy graduates had impacted the demand for pharmacists. We can see there was a definite trend from 2003 to 2013 with the demand for pharmacists decreasing.⁶ In 2013 the supply of new graduates was fairly balanced with employer demand for pharmacists.

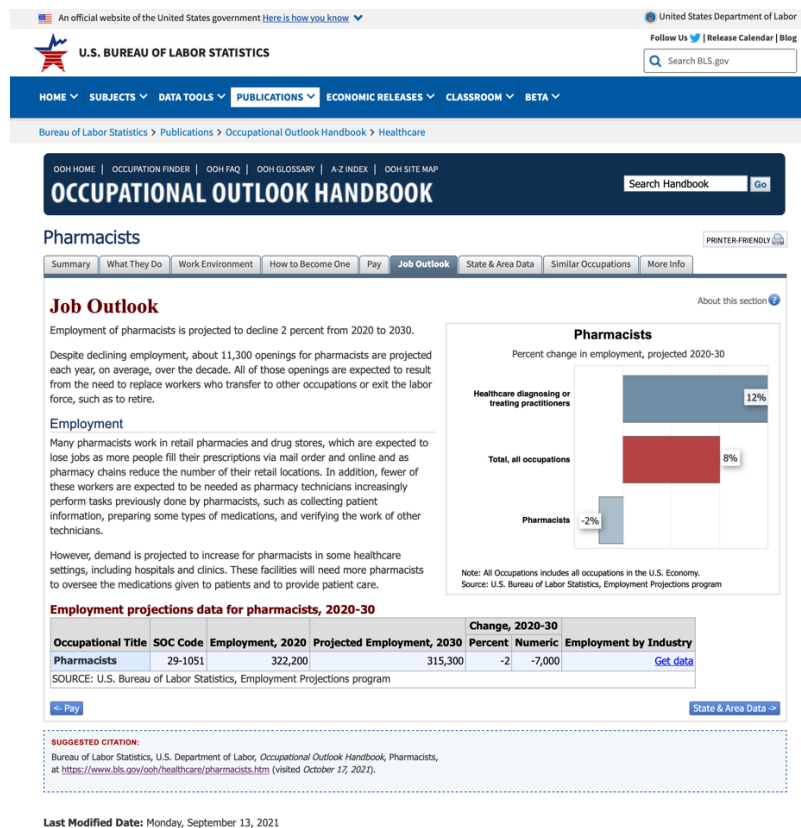


- In 2013, the demand for pharmacists was greater in the institutional setting as compared to the community setting. We have seen a corresponding increase in the demand for pharmacy residency positions as pharmacy students attempt to make themselves more competitive for available positions. Unfortunately the growth of residency positions has not kept up with demand. Students are also enrolling in other graduate degree programs (MBA, MHA, etc) to enhance their skills and to stand-out to an employer.



Several individuals starting reading the tea leaves and voiced concern over the potential for an oversupply of pharmacists. In December 2010, ASHP and APHA presented a discussion paper expressing concern over the rapidly expansion of pharmacy schools' capacity and how that might negatively impact the student's educational experience.⁷ In 2013, Dr. Dan Brown published a paper in the American Journal of Pharmaceutical Education expressing concern over the possibility of a crisis of joblessness for new pharmacy graduates with the unprecedented growth in graduates.⁸

- If we jump to the present, we can see in 2021 the Bureau of Labor Statistics projects pharmacist employment to go down by 2% by 2030.⁹ In part this may be due to increases in automation, mail-order pharmacies and increasing roles of pharmacy technicians.



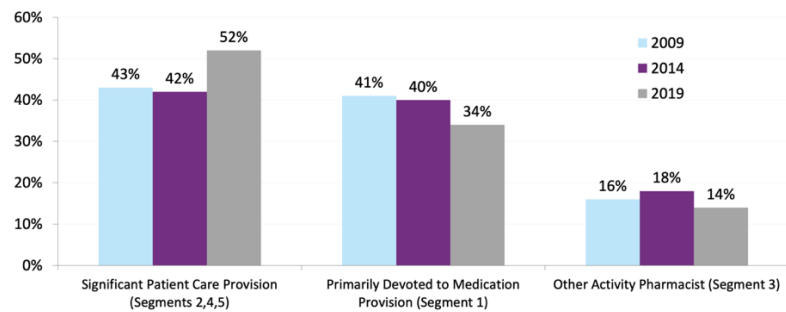
And while jobs may not be as plentiful, the salaries are still very good with a median salary over \$128,000.

Perhaps more importantly, the types of activities that pharmacists are engaged in are moving away from being solely a medication provider and more toward a patient care provider.^{10,11.}

- In 2019, it was estimated that over 50% of pharmacists were providing patient care as compared to 34% being primarily devoted to dispensing functions. Other pathways include pursuing positions that may not require pharmacy licensure or even a Pharm D degree. Careers in medical informatics, pharmaceutical or medical sales, research, or quality improvement are some other options.

Proportion of U.S. Pharmacists by Segment 2009, 2014, 2019

APhA2020
Moving Pharmacy Forward



Every generation is faced with challenges. My generation was trying to change pharmacy from a product focused profession to a patient focused profession. I have seen many things change during my career. The implementation of the entry-level Pharm.D. degree, the expansion of residency programs, board certification in pharmacotherapy and the consequent expansion of board certification in other clinical specialties.

Your generation has already faced a monumental challenge. You have endured part of your education and training during the COVID-19 pandemic. In June of 2020, I was precepting my last inpatient rotation when the hospital announced that my pharmacy student would be required to do the last half of her rotation from home. My resident and I split the remaining days to round since only one of us would be allowed to come into the hospital. We were all devastated. My heart failure clinic became virtual and my resident and I had to communicate with the patients and the nurse practitioner providers via telephone. One of the best parts of my job, interacting face to face with patients and providers was taken away. Now working from home has some advantages such as being able to do laundry and work at the same time or saving money and time by not commuting. But not seeing my patients, students or colleagues every day really took the enjoyment away from me.

We owe a debt of gratitude to those pharmacists and other healthcare providers on the front line. We learned how important and who really were the essential workers; including individuals cleaning hospital rooms and people stocking shelves in grocery stores. After the lockdown was over, we found out how dependent we are on teachers, and daycare workers.

We also need to recognize the amazing work done by scientists and pharmaceutical manufacturers worldwide that were able to create very effective vaccines in a very short period of time. Over 8 billion vaccine doses have been administered. Yet as of December 1, 2021, there have been over 780,000 deaths in the United States and over 5.2 million worldwide.¹³ As a healthcare professional seeing patients, I was very lucky to have been able to get vaccinated as soon as the vaccines were available. Unfortunately, my husband had retired, and he contracted COVID before he could get vaccinated. It was a terrible experience for both of us. The morning I had to take him to the Emergency Department was a frightening experience. I had to leave him there since I was not allowed to stay as a visitor. I waited at home not knowing whether he

would be admitted to the hospital or whether I would even see him again. Luckily, he was released the same day and was able to get monoclonal antibodies the following day and eventually made a full recovery. My heart breaks for those individuals who lost a loved one and who were unable to be at their bedside when they passed away.

Pharmacists have played a crucial role during this pandemic. They are not only administering vaccines but serve as a reliable source of information. It's sad that there are so many people misinformed. Some individuals are aggressive and hostile to the very people who are trying to help them. I hope you are not faced with many of those types of experiences, but you need to be prepared. Try not to get discouraged.

My husband bought me a book many years ago entitled "Don't Sweat the Small Stuff.....and it's all small stuff" by Richard Carlson. It contains 100 phrases with a 1-2 page vignettes for each phrase. Some of my favorite pieces were:

1. **Make peace with imperfection.** As members of Rho Chi you have probably focused on getting things right, especially on exams. Give yourself permission to make a mistake and cut yourself some slack.
2. **Get comfortable not knowing.** The more I learned the more often I found myself saying "I don't know". Those instances gave me the opportunity to keep learning.
3. **Surrender to the fact that life isn't fair.** It hurts to see bad things happen to good people. Do the best that you can to make their life a little easier.
4. **Become a better listener.** Don't interrupt others or finish their sentences and search for a grain of truth on other opinions.
5. **Become more patient and a less aggressive driver.**

Some other quotes I have come across that resonated with me are the following:

1. *"Keep going. You didn't come this far just to get this far."* You have all been very successful in your chosen career path thus far. Please continue, we need great leaders.
2. *"Always be curious, whether it is about people, places, ideas or processes. Situations won't get better unless they change."* To me this means ask questions and don't be annoyed when others question what or why you are doing certain things. Listen to other people's ideas.
3. *"Working hard for something you don't care about is called stress. But working hard for something you do care about is called passion."* I worked for 44 years and loved 99% of it. There were times when the required paperwork was annoying and certainly times when I burnt the candle at both ends trying to meet deadlines. The people I interacted with at my places of employment and through professional organizations made my career a joy. I found colleagues that shared a similar passion for pharmacy and patient care. We encouraged each other and celebrated our individual and collective achievements.

I wish each of you success in your careers. I hope you find the same joy and passion that I did. I look forward to seeing the changes you will make to pharmacy.

I would like to end by thanking the individuals who contributed to my nomination: Deans Philip Hall and Joe DiPiro, and Drs. Kathy Chessman, Bill Evans, Leigh Ann Ross and Cathy Worrall. I appreciate their friendship and support. Finally, I want to thank my husband John Bosso whose love and support has kept me afloat for the past 40 years.

References

1. Henderson, Metta Lou; Worthen, Dennis B. (March 8, 2002). American Women Pharmacists: Contributions to the Profession. CRC Press. p. 2. ISBN 9780789010926.
2. Garza, Anyssa (Updated August 17, 2020). "Happy Mother's Day to Women Pioneers in Pharmacy". Digital Pharmacist. <https://www.digitalpharmacist.com/blog/happy-mothers-day-women-pioneers-pharmacy/> accessed October 24, 2021.
3. <https://rhochi.org/about-rho-chi/history/> accessed October 24, 2021.
4. The adequacy of pharmacist supply: 2004 to 2030. Department of Health and Human Services Health Resources and Services Administration Bureau of Health Professions December 2008.
5. Bureau of Labor Statistics, US Department of Labor, *Occupational Outlook Handbook*, Pharmacists, at <https://www.bls.gov/ooh/healthcare/pharmacists.htm#tab-6> accessed October 1, 2013
6. www.pharmacymanpower.com accessed October 1, 2013
7. Thompson CA. ASHP, APhA warn of decreased graduate quality from increased enrollments. *American Journal of Health-System Pharmacy*, Volume 68, Issue 2, 15 January 2011, Pages 104–106, <https://doi.org/10.2146/news110003>
8. Brown DL. A looming joblessness crisis for new pharmacy graduates and the implications it holds for the academy. *American Journal of Pharmaceutical Education* June 2013, 77 (5) 90; DOI: <https://doi.org/10.5688/ajpe77590>
9. Bureau of Labor Statistics, US Department of Labor, *Occupational Outlook Handbook*, Pharmacists, at <https://www.bls.gov/ooh/Healthcare/Pharmacists.htm#tab-6> accessed October 25, 2021
10. https://www.aacp.org/sites/default/files/2020-04/2019_NPWS_Webinar_Slides.pdf accessed October 24, 2021
11. Bureau of Labor Statistics, US Department of Labor, *Occupational Outlook Handbook*, Pharmacists, at <https://www.bls.gov/ooh/Healthcare/Pharmacists.htm#tab-1> accessed October 25, 2021
12. Bureau of Labor Statistics, US Department of Labor, *Occupational Outlook Handbook*, Pharmacists, at <https://www.bls.gov/ooh/Healthcare/Pharmacists.htm#tab-5> accessed October 25, 2021
13. <https://coronavirus.jhu.edu> accessed December 1 2021.